

AUTHOR:

Khovanskiy, G.S.

20-118-2-12/60

TITLE:

Forms of Relationships Having Additional Possibilities for the Transformation of Nomograms With Oriented Transparent Sheets (Formy zavisimostey, obladayushchikh dopolnitel'nymi vozmozhnostyami dlya preobrazovaniya nomogramm s orientirovannym transparentom)

PERIODICAL:

SSSR  
Doklady Akademii Nauk, 1958, Vol 118, Nr 2, pp 251-254 (USSR)

ABSTRACT:

The present paper is a completion and continuation of results already published by the author [Ref 1,2] . It concerns the representation of the forms

$$f_{12} + \varepsilon_{12} \varepsilon_{34} + f_{34} = 0 \quad , \quad \begin{vmatrix} f_{12} & \varepsilon_{12} & 1 \\ f_{34} & \varepsilon_{34} & 1 \\ f_{56} & \varepsilon_{56} & 1 \end{vmatrix} = 0 \quad \text{etc} \quad ,$$

where  $f_{ij} = f_{ij}(\alpha_i, \alpha_j)$  , in a form which admits the construction of a chart with oriented transparent sheet. Additional parameters are introduced whereby new possibilities

Card 1/2

Forms of Relationships Having Additional Possibilities for the Transformation of Nomograms With Oriented Transparent Sheets 20-118-2-12/60

of transformation are discovered. There are 3 Soviet references.

ASSOCIATION: Vychislitel'nyy tsentr Akademii nauk SSSR (Computing Center of the Academy of Sciences USSR)

PRESENTED: June 28, 1957, by A.A. Dorodnitsyn, Academician

SUBMITTED: June 28, 1957

AVAILABLE: Library of Congress

Card 2/2

**AUTHOR:** Khovanskiy, G.S. SOV/20-121-1-14/55

**TITLE:** Nomographic Methods of the Approximate Representation of a Function of One Variable (Nomograficheskiye metody priblizhennogo predstavleniya funktsii odnogo peremennogo)

**PERIODICAL:** Doklady Akademii nauk SSSR, 1958, Vol 121, Nr 1, pp 56-58 (USSR)

**ABSTRACT:** The starting point of the investigation are the nomographic representations of the equations

(1)  $\Phi [v, f(u) \cos \alpha - g(u) \sin \alpha + A, f(u) \sin \alpha + g(u) \cos \alpha + B] = 0$

(2)  $F [f(u, v) \cos \alpha + g(u, v) \sin \alpha + A, -f(u, v) \sin \alpha + g(u, v) \cos \alpha + B] = 0$

according to W. Margulis [Ref 5]. It is shown that these equations and their special cases may serve for the nomographic solution of several approximation problems for functions of one variable, e.g. for the interpolation, for the choice of parameters for empirical formulas of the type (1) or (2), for the investigation of the absolute and relative errors arising by replacing a given function by functions of the type (2) etc.

There are 5 references, 3 of which are Soviet, and 2 French.

**PRESENTED:** January 2, 1958, by A.A. Dorodnitsyn, Academician

Card 1/2

Nomographic Methods of the Approximate Representation of a Function of One Variable SOV/20-121-1-14/55

SUBMITTED: December 27, 1957

1. Functions
2. Nomograms--Applications
3. Nomograms--Preparation

Card 2/2

KHOVANSKIY, Georgiy Sergeevich; YAKOVKIN, M.V., red.; POPOVA, N.S.,  
tekhn.red.

[Nomogram for hydraulic calculation of canals of trapezoid,  
circular, and parabolic profiles] Nomogramma dlia gidravli-  
cheskogo rascheta kanalov trapetseidal'nogo, kruglogo i para-  
bolicheskogo profilia. Moskva, Vychislitel'nyi tsentr AN SSSR,  
1959. 22 p. Supplement. 10 plates. (MIRA 13:2)  
(Canals) (Nomography (Mathematics))

KHOVANOV, G. S.

P. 2

16(1)

PHASE I BOOK EXPLOITATION

SOV/2445

Akademiya nauk SSSR. Vychislitel'nyy tsentr

Vychislitel'naya matematika (Computational Mathematics) Moscow, Izd-vo AN SSSR, 1959. 183 p. (Series: Its: Sbornik, 4) Errata slip inserted. 5,000 copies printed.

Resp. Ed.: V. A. Ditkin, Professor; Ed.: M. V. Yakovkin; Tech. Ed.: I. N. Guseva.

**PURPOSE:** This book is intended for applied mathematicians, scientists, and engineers.

**COVERAGE:** This book contains seven articles concerning the development of new methods of constructing nomograms of practical value in computations. The first two articles, which make up the largest part of the book, deal with various aspects of practical nomography. Much attention is paid to the nomograms with movable scales and to the nomographing of canonical forms. Projective transformations of alignment nomograms, design of nomograms on high speed computers, nomograms of polynomials, elements of the theory of nets and their application to nomography are also discussed

Card 1/8

Computational Mathematics (Cont.)

SOV/2445

in the book. References accompany each article.

TABLE OF CONTENTS:

Khovanskiy, G. S. Certain Problems of Practical Nomography 3

Ch. I. Nomograms With Orientated Movable Scale for Equations With Four Variables 3

1. Introduction 3

2. Nomographing the canonical form  $f_3 = F(f_{12} + f_4, g_{12} + g_4)$  5

3. Nomographing the canonical form  $f_4 + F(g_1, g_{12}) + f_{12} = 0$  7

4. Nomographing the canonical form  $A(\alpha) + B(\beta)C(\gamma, \delta) + D(\gamma, \delta) = 0$  8

5. Nomographing the canonical form  $f_{12} + g_{12} g_{34} + f_{34} = 0$  11

6. Nomographing the canonical form

$$\begin{vmatrix} f_1 & g_1 & 1 \\ f_2 & g_2 & 1 \\ f_{34} & g_{34} & 1 \end{vmatrix} = 0$$

7. Nomographing the canonical forms 15

$$f_1 = \frac{f_2 + f_{34}}{g_2 + g_{34}}; f_1 f_2 f_{34} + (f_1 + f_2) g_{34} + h_{34} = 0, f_1 f_{34} + f_2 g_{34} + h_{34} = 0$$

Card 2/8

Computational Mathematics (Cont.)

SOV/2445

Ch. II. Nomograms With Orientated Movable Scale for Equations Representable by Alignment Nomograms

- 8. The general case 17
- 9. Nomographing the canonical form 18  

$$\begin{vmatrix} b_1 & p_1 & 1 \\ b_2 & p_2 & 1 \\ b_3 & p_3 & 1 \end{vmatrix} = 0$$
 23
- 10. Nomographing the canonical form 25  

$$\begin{vmatrix} b_1 & p_1 & 1 \\ b_2 & p_2 & 1 \\ b_3 & p_3 & 1 \end{vmatrix} = 0$$
- 11. Nomographing the canonical form  $f_1 = \frac{p_{23} + b_{15}}{p_{23} + p_{45}}$  27
- 12. Nomographing the canonical form  $f_1 = \frac{p_{23} + b_4}{p_{23} + p_6}$  34
- 13. Nomographing the canonical form 32  

$$\begin{vmatrix} b_1 & p_1 & 1 \\ b_2 & p_2 & 1 \\ b_3 & p_3 & 1 \end{vmatrix} = 0$$
- 14. Nomographing the canonical form 34  

$$b_1 b_2 = b_{14} + (b_1 + b_2) p_{34} + b_{34} = 0$$

Card 3/8

Computational Mathematics (Cont.)

SOV/2445

15. Nomographing the canonical form  $f_1 f_{34} + f_2 g_{34} + h_{34} = 0$  38

Ch. III. Nomograms With Orientated Movable Scales for Equations With Six Variables, Which Allow the Introduction in Equations of a Field of Arbitrary Functions

16. The case of one arbitrary function 47  
 17. Nomographing the canonical form 48

$$f_{12} + \Phi(g_{56} - g_{12}) = f_{34} + F(g_{56} - g_{34})$$

18. Nomographing the canonical form 49

$$f_2 + f_{34} = F(g_1, g_2 + g_{56}) + \Phi(g_{34} - g_{56})$$

19. Nomographing the canonical form 51

20. The case of two arbitrary functions 52

21. Nomographing the canonical form 52

$$f_{56} = f_{12} + F(g_{12} - g_{34})$$

22. Nomographing the canonical form 53

$$f_1 = F(f_2 + f_{56}, g_2 + g_{34})$$

Card 4/8

Computational Mathematics (Cont.)

SOV/2445

23. The case of three arbitrary functions	55
Ch. IV. Nomographing Method for the Approximate Representation of a Function of One Variable	
24. Stating the problem	57
25. Nomograms with scales having three degrees of freedom	57
26. Particular cases of nomograms having three degrees of freedom	59
27. Nomograms with orientated movable scale	63
28. Nomographing the equation $F[v, f(u)+A, g(u)+B]=0$ and its special cases	67
29. Nomographing the equation $F[f(u, v)+A, g(u, v)+B]=0$ and its particular cases	69
30. Alignment nomograms	72 75
Ch. V. Approximate Alignment Nomograms With Combined Rectilinear Scales	78
31. Stating the problem	78
32. Replacing exact equations by approximate equations	79
33. Geometric errors in the location of points on an approximate scale 2 <sub>1</sub>	80
34. Geometric errors in the location of points in the approximate	
Card 5/8	

Computational Mathematics (Cont.)	SOV/2445
scale 2 <sub>2</sub>	
35. Transformation of initial approximate equations	82
36. Final equation for the elements of an approximation nomogram	83
37. Example on the construction of an approximation nomogram with combined parallel scales	84
Ch. VI. Application of Nomograms for the Study of Functional Relationships	90
38. Principles of selecting a type of nomogram for the analysis and study of functional relationships	90
39. On certain type of problems in the study of a functional relationship by means of its nomogram	91
40. Nomographic method of studying the hydraulic design of a channel with regular crosssections	92
41. Nomographic method for the calculation of gear teeth displacement	99
Dzhems - Levi G. Ye. Certain General Methods of Practical Nomography	104
Introduction	
Ch. I. The Problem of General Anamorphosis	104
1. Construction of nomograms by intersections	107
2. Differential equations of the nomogram scales	110
Card 6/8	

**KHOVANSKIY, G.S.**

Transparent nomograms used in designing reinforced concrete beams of rectangular section and with single reinforcement [with summary in English]. Inzh.-fiz.zhur. no.1:84-86 Ja '59. (MIRA 12:1)

1. Vychislitel'nyy tsentr AN SSSR, Moskva.  
(Reinforced concrete--Tables, calculations, etc.)

10(2)

06399

SOV/170-59-2-17/23

AUTHOR: Khovanskiy, G.S.

TITLE: Hydraulic Calculation of Parabolic Channels by Means of Nomograms

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Nr 2, pp 113-117 (USSR)

ABSTRACT: The hydraulic calculation of channels with parabolic profile can be reduced to a system of six equations, if the formula of N.N. Pavlovskiy is adopted for the Shezi (Russian spelling) coefficient  $C$ . The unknowns sought for in this system are the following:  $v$  - flow velocity in m/sec;  $Q$  - discharge of liquid in  $m^3/sec$ ;  $R$  - hydraulic radius in m;  $b$  - the width of the channel at  $h$  - depth in m;  $\omega$  - the area of the cross section in  $m^2$ , and  $p$  - a parameter in the equation of parabola  $y^2 = 2px$ . The paper gives nomograms for the solution of this system of equations and instructions how to use them, illustrating the indications with three numerical examples. Then the application of the nomograms for the analysis

Card 1/2

06399

SOV/170-59-2-17/23

Hydraulic Calculation of Parabolic Channels by Means of Nomograms

of the relationships between the variable parameters occurring in the equations is described, and it is concluded that they are particularly useful when optimum values of the parameters are chosen.

There are 2 sets of nomograms and 2 Soviet references.

ASSOCIATION: Vychislitel'nyy tsentr AN SSSR (Computing Department of the AS USSR)  
Moscow.

Card 2/2

MALYUSOVA, M.M.; MASLENNIKOV, N.A.; KHOVANSKIY, G.S.

Growth rate of methane-producing bacteria. Vol. 1 san.tekh.  
no.4:36-38 Ap '69. (MIRA 12:5)  
(Sewage--Bacteriology) (Methane)

KHOVANSKIY, G.S.

Nomograms for calculating the oxygen regimen of bodies of water.

Vod. i san. tekhn. no.10:12-13 '59. (MIRA 13:1)

(Water--Oxygen content) (Nomography (Mathematics))

23(2)

AUTHOR:

Khovanskiy, G.S., Candidate of  
~~Technical Sciences~~

S/030/60/000/01/023/067  
B015/B008

TITLE:

1st International Conference on Nomography

PERIODICAL:

Vestnik Akademii nauk SSSR, 1960, Nr 1, pp 70-71 (USSR)

ABSTRACT:

The Conference was held in Prague from September 7 to 9, 1959 and had been convened by the Czechoslovakian Polytechnic School of Higher Education and the Czechoslovakian Physical and Mathematical Society. It was the aim of the Conference to acquaint wide circles of engineers and technicians with the latest achievements in this field. Experts on nomography from the following countries attended the Conference: Czechoslovakia, the USSR, Poland, Bulgaria and Eastern Germany. Methods for building up nomograms and the application of nomography in various fields of engineering were discussed. The reports by Y. Pleskot, V. Stepansky, and F. Jurg on behalf of the Czechoslovakian scientists, as well as by E. Otto (Poland) are mentioned. M.V. Pentkovskiy (USSR) reported on new results which were achieved in this field. The author states finally that nomograms are used insufficiently in the USSR, which is

Card 1/2

1st International Conference on Nomography

S/030/60/000/01/023/067  
B015/B008

detrimental to the national economy. He deems it useful to convene a conference on nomography and its practical application in the USSR, in order to acquaint wide circles of engineers and technicians with the possibilities offered by this branch. ✓

Card 2/2

BORISOV, S.N.; LAPTEVA, D.G.; KHOVANSKIY, G.S.; KORKINA, A.I., tekhn. red.

[Collection of nomograms for the calculation of free surface curves  
in canals of a trapezoid profile] Sbornik nomogramm dlia rascheta  
krivyykh svobodnoi poverkhnosti v kanalakh trapetseidal'nogo profilja.  
Moskva, Vychislitel'nyi tsentr AN SSSR, 1961. 13 p. [Nomograms]  
Nomogrammy. (MIRA 14:11)

(Hydraulics—Tables, calculations, etc.)

BORISOV, S.N.; LAPTEVA, D.G.; KHOVANSKIY, G.S.

[Collection of nomographs for calculating free surface curves in channels of a trapezoidal cross section] Sbornik nomogramm dlia rascheta krivykh svobodnoi poverkhnosti v kanalakh trapetseidalnogo profilja. Moskva, Vychislitel'nyi tsentr AN SSSR, 1961.  
--- Supplement. 30 l. (MIRA 14:8)  
(Hydraulic structures) (Nomography (Mathematics))

*KHOVAN-STIV GS.*

*BR*

*25*

PHASE I BOOK EXPLOITATION

SOV/5962

Vsesoyuznoye soveshchaniye po vychislitel'noy matematike i primeniyu sredstv vychislitel'noy tekhniki, Baku, 1958.

Trudy (Transactions of the All-Union Conference on Computer Mathematics and Applications of Computers) Baku, Izd-vo AN Azerbaydzhanskoj SSR, 1961. 254 p. 500 copies printed.

Sponsoring Agency: Akademiya nauk Azerbaydzhanskoj SSR. Vychislitel'nyy tsentr.

Eds.: A.A. Dorodnitsyn, S.A. Aleskerov, and K.F. Shirinov; Ed. of Publishing House: A. Til'man; Tech. Ed.: T. Ismailov.

PURPOSE: The book is intended for mathematicians and other specialists interested in computer theory and uses for computers.

COVERAGE: The book contains the texts of 24 papers presented at the All-Union Conference on Computer Mathematics and Applications of Computers held in Baku, 3-8 Feb 1958. The "Resolution"

Card 1/3

25

Transactions of the All-Union (Cont.)

SOV/5962

of the conference, consisting of proposals for accelerating the development of computer mathematics and computer engineering, is also included.

TABLE OF CONTENTS:

Khalilov, Z.I. Introductory Remarks	7
Dorodnitsyn, A.A. Problems of Computer Technology	9
PART I. COMPUTER MATHEMATICS	
Vekilov, Sh.I. Boundary Problem of the Laplace Equation for a Composite Region	14
Dzhabarzade, R.M. The Use of Computers for Operational Weather Forecasting	20
Korolyuk, V.S. Construction of Logic Problem Algorithms	23

Card 2/8

Transactions of the All-Union (Cont.)	SOV/5962	
Dzhabarzade, R.M. Standard Subroutine for Solving a System of Ordinary Differential Equations		36
Belotserkovskiy, O.M., and P.I. Chushkin. Solution of High-Speed Aerodynamics Problems on Electronic Computers		39
Khovanskiy, G.S. Work of the Nomogram Section of the Computation Center, Academy of Sciences USSR		53
Dzhems-Levi, G.E. Standardization and Mechanization of the Calculation of Nomogram From Aligned Points		68
Yershov, A.P., and V.M. Kurochkin. Some Problems in Automatic Programming		72
Velikanova, T.M., A.P. Yershov, K.V. Kim, V.M. Kurochkin, Yu.A. Oleynik-Ovod, and V.D. Podderiyugin. Program for Automatic Programming		81

Card 3/6

S/020/61/138/004/003/023  
 C111/C333

AUTHOR: Khovanskiy, G.S.

TITLE: Representation of the equation  $f_1 + f_2 + f_3 + f_4 + f_5 + f_6 = 0$   
 by a nomogram having a rule for an oriented sheet

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 138, no. 4, 1961, 793-795

TEXT: If the equation

$$f_1 + f_2 + f_3 + f_4 + f_5 + f_6 = 0, \quad (1)$$

where  $f_i = f_i(d_i)$ , is written in the form

$$f_1 + \frac{\mu^i \mu^{ii}}{\mu^i + \mu^{ii}} f_3 + \frac{\mu^i \mu^{ii}}{\mu^i + \mu^{ii}} f_6 + \mu^i f_4 = \frac{\mu^i \mu^{ii}}{\mu^i + \mu^{ii}} f_3 + \frac{\mu^i \mu^{ii}}{\mu^i + \mu^{ii}} f_6 + \mu^{ii} f_5, \quad (2)$$

where the parameters satisfy the condition  $\mu^i \mu^{ii} (\mu^i + \mu^{ii}) \neq 0$ , and if it is put

Card 1/6

Representation of the equation ...

S/020/61/138/004/003/023  
G111/C333

$$f_1 + \frac{\mu' \mu''}{\mu' + \mu''} f_3 + \frac{\mu' \mu''}{\mu' + \mu''} f_6 + \mu' f_4 = -B + T_4 \quad (3)$$

$$-f_2 - \frac{\mu' \mu''}{\mu' + \mu''} f_3 + \frac{\mu' \mu''}{\mu' + \mu''} f_6 + \mu'' f_5 = -\gamma + T_5 \quad (4)$$

where B and  $\gamma$  are auxiliary variables,  $T_4$  and  $T_5$  - arbitrary functions, then instead of (2) one obtains

$$B - T_4 = \gamma - T_5 \quad (5)$$

The equations (3), (4) and (5) are brought to the nomographicable form

$$\mu'(-B - f_1) - \mu'(f_4 - T_4) = \mu''(\gamma - f_2) - \mu''(f_5 + T_5) =$$

Card 2/6

Representation of the equation ... S/020/61/130/004/003/023  
 C111/C333

$$= \frac{\mu^i \mu^n}{\mu^i + \mu^n} f_3 + \frac{\mu^j \mu^n}{\mu^i + \mu^n} f_6, \quad (6)$$

$$B - T_4 = \gamma - T_5 = \delta - T_6,$$

where  $\delta$  is an auxiliary variable,  $T_6$  - - arbitrary function (see G.S. Khovanskiy (Ref. 1: *Nomogrammy s oriyentirovannym transparentom* [Nomograms with oriented sheet], M., 1957)).

After the introduction of the transformation parameters

$a_0, b_0, a'_0, b'_0, a, b, c, d, \mu_y, \delta_x = 0,5(\mu^i - \mu^n)$ , the author gives the equations of the elements of the nomogram in table 1

Fixed plane

Coordinates	Field ( $\alpha_1, B$ )	Field ( $\alpha_2, \gamma$ )	Field ( $\alpha_3, \delta$ )
x	$a_0 - 0,5(\mu^i + \mu^n)B - \mu^i f_1$	$a_0 + a + 0,5(\mu^i + \mu^n)\gamma - \mu^i f_2$	$a_0 + c + 0,5(\mu^i - \mu^n)\delta + \frac{\mu^i \mu^n}{\mu^i + \mu^n} f_3$
y	$b_0 + \mu_y B$	$b_0 + b + \mu_y \gamma$	$b_0 + d + \mu_y \delta$

Card 3/6

Representation of the equation ...

S/020/61/138/004/003/023  
C111/0222



Sheet

Coordinates	Scale $\alpha_4$	Scale $\alpha_5$	Scale $\alpha_6$
x	$a'_0 + \mu' f_4 - 0,5(\mu' + \mu'')T_4$	$a'_0 + a + \mu'' f_5 + 0,5(\mu' + \mu'')T_5$	$a' + d - \frac{\mu' \mu''}{\mu' + \mu''} f_6 + 0,5(\mu' - \mu'')T_6$
y	$b'_0 + \mu'_y T_4$	$b'_0 + b + \mu''_y T_5$	$b'_0 + d + \mu''_y T_6$

If it is put  $T_4 = T_5 = T_6 = 0$  and  $b'_0 = b = d = 0$ , then the scales  $\alpha_4, \alpha_5, \alpha_6$  lie on one straight line and the sheet has the form of a ruler. From (6) it follows

$$B - \gamma - \delta = \frac{-\mu'(f_1 + f_4) + \mu''(f_2 + f_5)}{\mu' + \mu''} \quad (7)$$

Card 4/b

Representation of the equation ...

S/020/61/138/004/003/023  
C111/C333

As an example the author shows the nomogram of the formula  $z = \alpha_1 + \alpha_2 + \alpha_3 + \alpha_4 + \alpha_5$  on figure 1

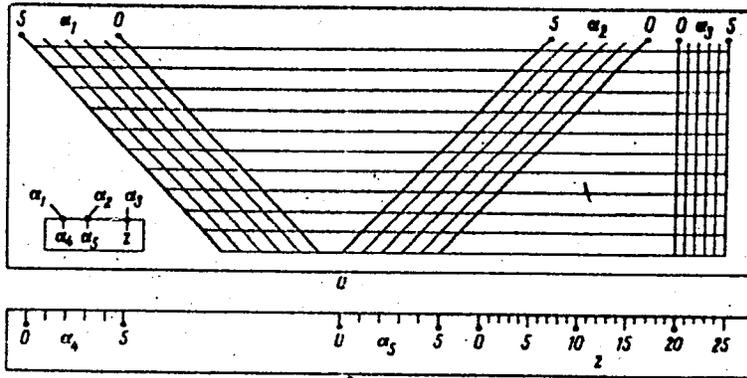


Fig. 1. a - fixed plane; b - sheet.

Card 5/6

Representation of the equation ...

S/020/61/138/004/003/023  
C111/C333

✓

Here we have  $0 \leq \alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5 \leq 5, 0 \leq z \leq 25$ .

There is 1 table, 1 figure, and 1 Soviet-bloc reference.

ASSOCIATION: Vychislitel'nyy tsentr Akademii nauk SSSR (Computer Center of the Academy of Sciences USSR)

PRESENTED: January 28, 1961, by A.A. Dorodnitsyn, Academician

SUBMITTED: January 26, 1961

40  
45  
50  
55  
60

Card 6/6

*Khovanskiy, G.S.*

PHASE I BOOK EXPLOITATION

SOV/6352

Akademiya nauk SSSR. Vychislitel'nyy tsentr

Nomograficheskiy sbornik (Collected Papers on Nomography, no. 1.)  
Moscow, 1962. 248 p. 1800 copies printed.

Resp. Ed.: G. S. Khovanskiy, Candidate of Technical Sciences;  
I. A. Orlova; Tech. Ed.: A. I. Korkina.

PURPOSE: This collection of papers is intended for those engaged  
in research on and design of nomographs.

COVERAGE: This collection contains 27 papers concerning various  
aspects of the theory, construction, and use of nomograms for  
the solution of algebraic, functional, transcendental, and dif-  
ferential equations. No personalities are mentioned. There  
are 122 references: 102 Soviet (1 of which is a translation  
from the English), 8 German, 5 French, 2 English, 2 Spanish,  
2 Rumanian, and 1 Czech.

Card ~~1/10~~

*1/2*

Collected Papers on Nomography

SOV/6352

TABLE OF CONTENTS:

Editor's Preface	3
I. <u>Khovanskiy, G. S.</u> , Moscow. Nomography and Its Possibilities	5
1. Place of nomography in computational mathematics	5
2. Simplicity of use of nomograms and elementary nature of their theoretical foundation	6
3. Relationships which can be represented by nomograms	8
4. Technique of using nomograms	8
5. Difficulties in the construction of nomograms	9
6. Use of nomograms for analysis and investigation	10
7. Use of nomograms in a typical design	11
8. The current state of nomography	12
9. On methods for the further development of nomography	13

Card ~~2/10~~  
2/2

KHOVANSKIY, G.S. (Moskva)

Nomography and its possibilities. Nom. sbor. no.1:5-14 '62.  
(MIRA 16:5)

(Nomography (Mathematics))

KHOVANSKIY, G.S.; ORLOVA, I.A., red.; KORKINA, A.I., tekhn.red.

[Nomograms for the hydraulic calculation of drains] Nomogrammy  
dlia gidravlicheskogo rascheta dren. Moskva, Vychislitel'nyi  
tsentr AN SSSR, 1962. 12 p. 6 graphs. (MIRA 15:12)  
(Drainage) (Nomography (Mathematics))

KHOVANSKIY, G.S.; DITKIN, V.A., prof., otv. red.; ORLOVA, I.A., red.;  
KORKINA, A.I., tekhn. red.

[Nomograms for linear interpolation] Nomogrammy dlia lineinoi  
interpoliatsii. Moskva, Vychislitel'nyi tsestr AN SSSR, 1962.  
14 p. 10 graphs. (MIRA 15:10)  
(Nomography (Mathematics)) (Interpolation)

KHOVANSKIY, G.S. (Moskva)

Graphic method for constructing approximated nomograms from aligned points for solving a system of two equations with two unknowns and three parameters. Nom. sbor. no.1:115-121 '62. (MIRA 16:5)

(Nomography (Mathematics))

KHOVANSKIY, G.S. (Moskva)

Representation of the equations  $f_4 = f_{12} + f_{13}$  and  $f_4 = f_{12} +$   
 $F(\alpha, 3, g_{12})$  by nomograms constructed from aligned points. Nom.  
sbor. no.1:122-128 '62. (MIRA 16:5)

(Nomography (Mathematics))

KHOVANSKIY, G.S. (Moskva)

Generalization of nomographs constructed from aligned and equidistant points by means of parallel-index and divider-type nomograms. Nom. sbor. no.1:137-148 '62. (MIRA 16:5)  
(Nomography (Mathematics))

ULANOVSKIY, V.P.; KHOVANSKIY, G.S.; DITKIN, V.A., prof., otv.  
red.; ORLOVA, I.A., red.; KORIKINA, A.I., tekhn. red.

[Interpolation of tabulated functions of several  
variables by means of numerical and nomographic representa-  
tion] Interpolirovanie tablitsnykh funktsii mnogikh peremen-  
nykh sredstvami chislennogo i nomograficheskogo predstavle-  
niia. Moskva, VTs AN SSSR, 1963. 74 p. (MIRA 17:1)  
(Functions of several variables)  
(Interpolation)

BORISOV, S.N.; DATOCHNYI, V.V.; KHOVANSKIY, G.S., kand. tekhn.  
nauk, otv. red.; ORLOVA, I.A., red.; KORKINA, A.I.,  
tekhn. red.

[Tables and nomograms for hydraulic calculation of gas  
pipelines]Tablitsy i nomogrammy dlia digravlicheskogo  
rascheta gazoprovodov. Moskva, Vychislitel'nyi tsentr  
AN SSSR, 1963. 77 p. (MIRA 17:2)

UL'MASOV, N.; KHOVANSKIY, G.S., doktor tekhn. nauk, otv. red.;  
ORLOVA, I.A., red.

[Nomograms for the hydraulic design of sewerage networks]  
Nomogrammy dlia gidravlicheskogo rascheta kanalizatsion-  
nykh setei. Moskva, VTs AN SSSR, 1964. 30 p.  
(MIRA 17:8)

KHOVANSKIY, G.S.; DITKIN, V.A., prof., otv. red.; ORLOVA, I.A.,  
red.

[Methods in nomography] Metody nomografirovaniia. Moskva,  
Vychislitel'nyi tsentr AN SSSR, 1964. 223 p. (MIRA 18:3)

DENISYUK, I.N. (Moskva); LAPTEVA, D.G. (Moskva); KHOVANSKIY, G.S. (Moskva)

In memoriam S.V. Bakhvalov; obituary. Nom. sbor. no.2:3-5 '64.  
(MIRA 18:3)

KHOVANSKEY, G.S. (Moskva)

Nomographic methods of approximate representations of functions  
of one and two variables. Ncm. sbcr. no.2:91-102 '64.  
(MIRA 18:3)

ULANOVSKIY, V.P. (Moskva); KHOVANSKIY, G.S. (Moskva)

Nomographing of functions of two and three variables. Nom.  
sbor. no. 2:124-132 '64. (MIRA 18:3)

KHOVANSKIY, G.S., doktor tekhn. nauk

Second conference on nomography held in Czechoslovakia.  
Vest. AN SSSR 35 no.4:79 Ap '65.

(MIRA 18:6)

ZHIDKOV, N.P.; DEZIN, A.A.; FEDORYUK, M.V.; KHOVANSKIY, G.S.

Reviews. Zhur. vych. mat. i mat. fiz. 5 no.4:781-784 J1-Ag '65.  
(MIRA 18:8)

KHOVANSKIY, G.S. (Moskva)

Conference on nomography at Ostrava. Nom. sbor. no.3:3-6 '65.

Use of nomograms in determining the extreme properties of functional  
relations. Ibid. :76-102 (MIPA 18:10)

VERNER, Vladimir Vladimirovich, inzh.; KHOVANSKIY, Leonid  
Dmitriyevich, inzh.; APAKIN, I.S., red.; FREGER, D.P.,  
red.izd-va; GVIRTS, V.L., tekhn. red.

[Mechanization of the production of wooden boxes] Mekhani-  
zatsia proizvodstva dereviannoi iashchichnoi tary; iz opyta  
raboty peredovykh tarnykh predpriatii Upravleniya lesnoi  
promyshlennosti i lesnogo khoziaistva Leningradskogo sov-  
narkhoza. Leningrad, 1962. 35 p. (MIRA 16:7)  
(Leningrad Economic Region—Container industry)

1. KHOVANSKIY, N.
2. USSR (600)
4. Farm Buildings
7. Construction of service buildings on the collective farm.  
Kolkh. proizv. 12 No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

KHOVANSKIY, N.I. (Kazan')

Accelerating the process of car accumulation in stations.  
Zhel.dor.transp. 47 no.12:27-30 D '65.

(MIRA 18:12)

1. Starshly inzhener Kazanskogo otdeleniya Gor'kovskoy  
zheleznoy dorogi.

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6202

Author : Khovanskiy, N. N.

Inst : L'gov-exper.-selection station

Title : Biological Peculiarities of the Breed of Winter  
Wheat Obtained From Seeds Taken From the Stalks  
Formed in the Spring

Orig Pub : Byul. nauchno-tekhn. inform. L'govsk. opytno-  
selekts. st., 1958, vyp 1, 53-56

Abstract : Data resulting from a study of the effect of  
spring stalk-formation on the biological char-  
acteristics of winter wheat is given. The  
cessation of winter properties and the appear-  
ance of summer forms can take place even in the  
case of a single pre-winter sowing. The loss of

Card 1/2

2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6202

winter properties as a result of spring stalk-  
formation can be accompanied by the appearance  
of other varieties and even other species.

Card 2/2

KHOVANSKIY, N.N.

Effect of late fall sowing on the progeny of winter wheat.  
Agrobiologiya no. 3:123-125 My-Je '58. (MIRA 11:7)

1. L'govskaya opytno-selektsionnaya stantsiy po sakharnoy svekle.  
(Wheat)

KHOVANSKIY, O.M., Cand Tech Sci--(diss) "Study of the filtra-  
tion of fuels and oils in the <sup>grids</sup> ~~brews~~ of square <sup>nets</sup> ~~plates~~ and their  
supporting frames<sup>s</sup>." Mos, 1958. 14 pp (Min of Higher Edu-  
cation USSR. Mos Order of Lenin Aviation Inst in Sargo Ordzho-  
nikidze), 110 copies (KL,25-58,115)

-124-

AUTHOR: Khovanskiy, O.M. (Moscow)

SOV/24-58-4-12/39

TITLE: The Flow of Viscous Fluids Through Percolation Grids  
(O techenii vyazkikh zhidkostey cherez fil'tratsionnyye setki)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 4, pp 81 - 82 (USSR)

ABSTRACT: The flow of fluids through nine different wire gauzes containing from 36 to 10 000 meshes/cm<sup>2</sup> was measured and the quantity  $\log \zeta$  plotted against  $\log N_{Re}$ , where  $N_{Re}$  is the Reynolds number and  $\zeta$  is the coefficient of loss of hydrodynamic head defined by:

$$\zeta = \Delta P / \frac{1}{2} \rho V^2$$

where  $\Delta P$  is the pressure difference across the gauze,  $\rho$  is the mass density and  $V$  is the flow velocity in the meshes of the gauze. The graph of  $\log \zeta$  against  $\log N$  consists of two linear sections. For gauzes formed from one wire, the relations derived from the curve are:

Card1/2

SOV/24-58-4-12/39

The Flow of Viscous Fluids Through Percolation Grids

$$\zeta = 40/N_{Re} \quad (N_{Re} \leq 21) ,$$

$$\zeta = 6N_{Re}^{-1/3} \quad (21 < N_{Re} < 10\ 000)$$

and for a gauze formed from two wires:

$$\zeta = 32/N_{Re}^{-1} \quad (N_{Re} \leq 13) ,$$

$$\zeta = 9N_{Re}^{-1/2} \quad (13 < N_{Re} < 1\ 000) .$$

There are 2 figures, 1 table and 4 references, 3 of which are Soviet and 1 English.

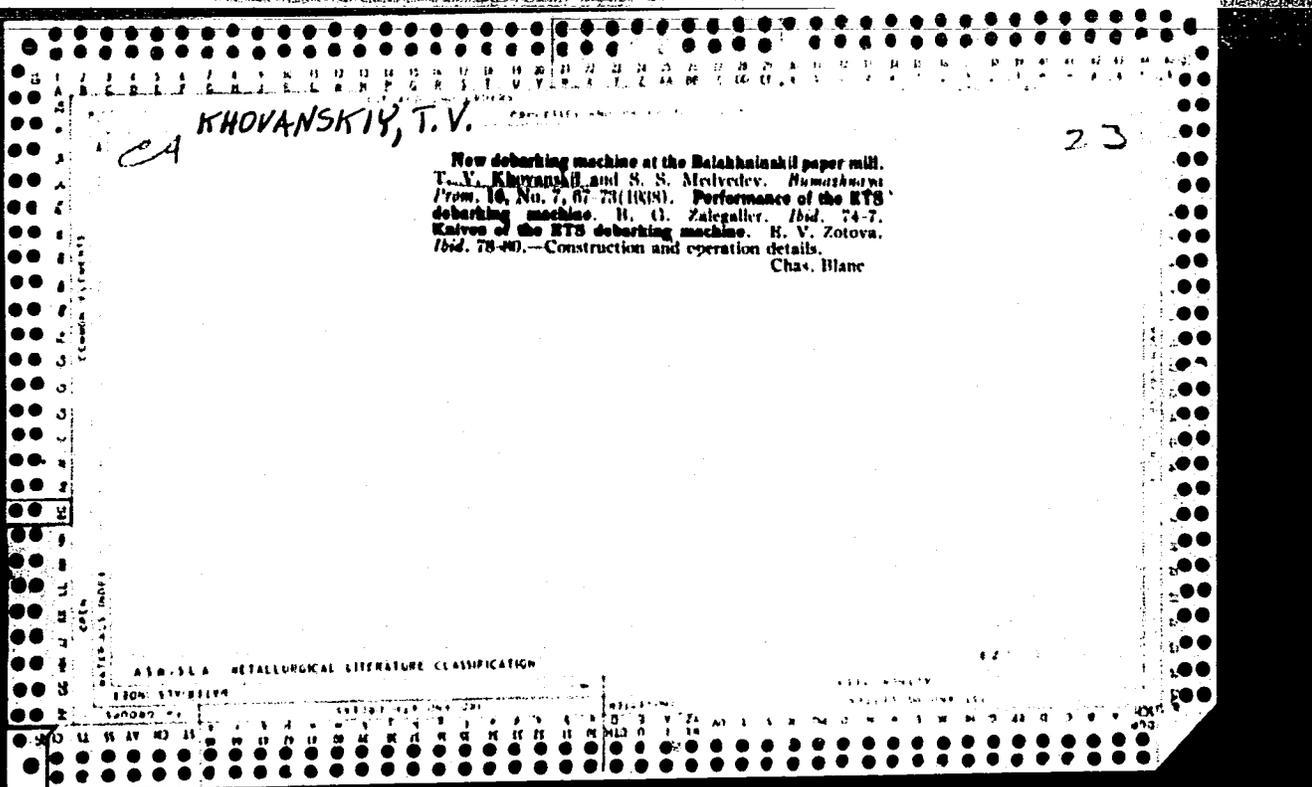
SUBMITTED: July 27, 1957

Card 2/2

KHOVANSKIY, O.M., kand. tekhn. nauk

Coefficient of hydrodynamic pressure losses in perforated screens and lattices with square netting. Izv. vys. ucheb. zav.; mashinostr. no.2:159-176 '63. (MIRA 16:8)

1. Moskovskiy aviatsionnyy institut.



KHOVANSKIY, T. V.

KHOVANSKIY, T. B. I ZHEGALIN, I. I.  
36211 Uskokoleynny parovoy kran na pogruzke lesa. Les. prom-st', 1949, No. 11, S. 14-16.

SO: Letopis Zhrunal hykh Statey, No. 49, 1949

КХОВАНСКИЙ, Ю. М.

PHASE I BOOK EXPLOITATION

SOV/6070

Babayeva, Nina Fedorovna, Valentin Mikhaylovich Yerofeyev, Igor' Mikhaylovich Sivokononko, Yuriy Mikhaylovich Khovanskiy, and Konstantin Nikolayevich Yavlenskiy

Detali i elementy giroskopicheskikh priborov (Parts and Elements of Gyroscopic Devices). Leningrad, Sudpromgiz, 1962. 497 p. Errata slip inserted. 4800 copies printed.

Scientific Eds.: P. P. Koptayev, Candidate of Technical Sciences, and V. P. Orlov, Engineer; Reviewers: Yu. A. Shcherbakov, Engineer, A. A. Saydov, Doctor of Technical Sciences, and E. I. Sliv, Candidate of Technical Sciences; Ed.: M. I. Nikitina; Tech. Ed.: R. K. Tsal.

PURPOSE: This book is intended for engineers concerned with instrument building and may also be used by students attending instrument-building institutes.

Card 1/4

Parts and Elements (Cont.)

SOV/6070

COVERAGE: The book reviews some problems encountered in designing typical parts and elements of gyroscopic devices: gyromotors, suspension bearings, main bearings, energy transfer devices, correcting and stopping devices, and gyro tracking systems. The authors express their gratitude to Doctor of Technical Sciences V. A. Pavlov and Candidate of Technical Sciences V. V. Khrushchev. There are 114 references: 109 Soviet, 3 German, and 2 English.

TABLE OF CONTENTS [Abridged]:

From the Authors	3
Ch. I. Gyromotors	5
Ch. II. Fluid, Gas-Lubricated, and Elastic Friction Bearings	74
Ch. III. Rolling Friction Bearings	151

Card 2/4

Parts and Elements (Cont.)	SOV/6070
Ch. IV. Current-Carrying and Pneumatic Apparatus for Feeding Gyroscopic Devices	249
Ch. V. Correcting Devices	264
Ch. VI. Mechanisms Limiting the Freedom of a Gyroscope's Rotation	314
Ch. VII. Stopping [Blocking] Mechanisms	333
Ch. VIII. Data-Gathering Elements of Gyroscopic Devices	347
Ch. IX. Tracking Systems in Gyroscopic Devices	433
Bibliography	491

Card 3/4

ACC NR: AR6020065

SOURCE CODE: UR/0124/66/000/001/A014/A014

AUTHOR: Khovanskiy, Yu. M.; Severov, L. A.; Stepkov, V. S.

TITLE: Forced oscillations of a monoaxial gyroscopic stabilization system having a zone of insensitivity

SOURCE: Ref. zh. Mekhanika, Abs. 1A99

REF SOURCE: Tr. Leningr. in-t aviats. priborostr., vyp. 44, 1964, 36-42

TOPIC TAGS: gyroscope stabilizer, nonlinear differential equation

TRANSLATION: Forced oscillations of a monoaxial gyroscopic stabilization system with an insensitive zone in the transmitter of the precession angle are analyzed by an approximation method based on harmonic linearization. It is shown that nonlinearity of the type considered increases the amplitude of forced oscillations in comparison with that of oscillations in a linear system. Moreover, the insensitive zone narrows the transmission belt of a closed system. The results of the analytic solution are confirmed by modeling. 3 references. P. Agaletskiy.

SUB CODE: 12

Card 1/1

L 47094-66 EWT(d)/EWT(1)/EWT(m)/EEG(k)-2/FSS-2 JD/BC

ACC NR: AR6018017

SOURCE CODE: UR/0271/66/000/001/A048/A048

AUTHOR: Khovanskiy, Yu. M.; Severov, L. A.; Slepko, V. S.

67B

TITLE: Forced oscillations of a uniaxial system of gyroscopic stabilization with a dead zone

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 1A338

REF SOURCE: Tr. Leningr. in-t aviats. priborostr., vyp. 44, 1964, 36-42

TOPIC TAGS: oscillation, gyroscope system, gyroscope

ABSTRACT: A specific problem has been analyzed for finding the forced oscillations of a gyroscopic stabilization system with a limited moment of the stabilizer motor in the presence of a dead zone of an angle-data transmitter of precession. [Translation of abstract] [NT]

SUB CODE: 17/

Card 1/1 hs

UDC: 62-5:623.13:621.396.988.6

L 00847-67 EWT(1)/EWT(d)/FSS-2/EWT(m)/EEC(k)-2 JD

ACC NR: AR6014107

SOURCE CODE: UR/0272/65/000/011/0199/0199

AUTHOR: Khovanskiy, Yu. M.

5/  
B

TITLE: Synthesis of correcting devices of certain stabilization systems

SOURCE: Ref. zh. Metrologiya i izmeritel'naya tekhnika, Abs. 11.32.1715

REF SOURCE: Tr. Leningr. in-t aviats. priborostr., vyp. 44, 1964, 3-14

TOPIC TAGS: gyroscope system, frequency characteristic

ABSTRACT: A simplified method of synthesis of correcting devices for certain stabilization systems is proposed. Relations are derived, on the basis of which, according to given quality indices, the frequency characteristic of an open static or astatic system can be constructed and the required characteristics of the series and parallel correcting devices determined. An example of synthesis of a series correcting device for a uniaxial system of gyroscopic stabilization according to the assigned transient time and the value of overcontrol is given. [Translation of abstract]

SUB CODE: 17

Card 1/1 pb

UDC: 384.531.383

L 00846-67 EWT(d)/FSS-2/EWT(1)/EEG(k)-2/EWT(m) JD

ACC NR: AR6014105

SOURCE CODE: UR/0272/65/000/011/0199/0199

AUTHORS: Khovanskiy, Yu. M.; Severov, L. A.; Slepkov, V. S.

60.  
B

TITLE: Forced oscillations of a uniaxial system of gyroscopic stabilization with a zone of insensitivity

SOURCE: Ref. zh. Metrologiya i izmeritel'naya tekhnika, Abs. 11.32.1712

REF SOURCE: Tr. Leningr. in-t aviats. priborostr., vyp. 44, 1964, 36-42

TOPIC TAGS: gyroscope system, oscillation, approximate solution, mathematic model

ABSTRACT: The forced oscillations of a uniaxial system of gyroscopic stabilization with a zone of insensitivity of the progression-angle pickup are analyzed by an approximate method based on harmonic linearization. It is shown that nonlinearity of the type in question increases the amplitude of forced oscillations, as compared with the oscillation amplitude in a linear system. In addition, a zone of insensitivity narrows the passband of the closed system. The results of the analytic solution are confirmed by modeling. 5 illustrations. Bibliography of 3 citations. P. Agaletskiy [Translation of abstract]

SUB CODE: 17

Card 1/1 pb

UDC: 389.531.383

1. 02101-11 101(4)/101(v)/101(k)/101(h)/101(1) 20

ACC NR: AR6014868 SOURCE CODE: UR/0372/65/000/011/G006/G006

AUTHOR: Khovanskiy, Yu. M. 30  
B

TITLE: Synthesis of the correcting devices of certain regulation systems

SOURCE: Ref. zh. Kibernetika, Abs. 11G41

REF SOURCE: Tr. Lenigr. in-t aviats. priborostr., vyp. 44, 1964, 3-14

TOPIC TAGS: frequency characteristic, quality control, scientific relation

ABSTRACT: A simplified method of synthesis of correcting devices for certain regulation systems is proposed. The essence of the method is described on the basis of a structural regulation circuit. On the basis of the derived relations the frequency characteristic of an open static or astatic system can be plotted according to given quality indices. The necessary characteristics of series and parallel correcting devices are determined. 4 illustrations. Bibliography of 6 citations. V. M. [Translation of abstract]

SUB CODE: 13 / 14 /

Card 1/1 MLP

UDC: 62-509

*KHOVANSKIY, Yu. M.*

AID Nr. 989-16 13 June

DETERMINING FORCED VIBRATIONS IN NONLINEAR STABILIZING SYSTEMS  
(USSR)

*Khoyanskiy, Yu. M., P. A. Severov, and V. S. Slepko.* Izvestiya vysshikh  
uchebnykh zavedeniy. Priborostroyeniye, v. 6, no. 2, 1963, 63-73.

S/146/63/006/002/007/010

An approximate method based on the use of logarithmic frequency characteristics has been used for determining forced vibrations in nonlinear gyro-stabilizing systems. The method, which consists in subdividing the linear part of a system into a number of standard units for which logarithmic frequency characteristics are well known, makes it possible to reduce the volume of computation considerably. The forced vibrations are assumed to occur at the frequency of external excitation. A numerical solution has been obtained for a stabilizing system with a stabilization motor having a limited torque. The results were checked by means of an electronic model and found to be in good qualitative agreement, the numerical difference between the two results not exceeding 1.5 db. The study was conducted at the Leningrad Institute of Aviation Instruments. [AS]

Card 1/1

L 45827-65 EEO-2/EWT(d)/EEC(k)-2/EEC(t)/EED-2/EWA(c) Pn-4/Po-4/Pq-4/Pg-4/Pae-2/  
Pk-4/Pl-4 BC

ACCESSION NR AM5002545

BOOK EXPLOITATION

55 s/  
B+

Pavlov, V. A.; Ponyrko, S. A.; Khovanakiy, YU. M.

Stabilization of aircraft and autopilots (Stabilizatsiya letatel'nykh apparatov i avtopiloty), Moscow, Izd-vo "Vysshaya shkola", 1964, 483 p. illus., biblio. 5,500 copies printed.

TOPIC TAGS: automatic control system, autopilot, aircraft

PURPOSE AND COVERAGE: This book presents materials of the open Soviet and foreign press on the basic problems of the theory, construction principles, features of components, and the use of automatic control systems for controlling the flight of flying craft. In addition, it describes the characteristics and includes data on some autopilots. The book is a textbook for students in correspondence and evening departments of aviation higher technical educational institutes and can also be used by engineers and technicians working in the automation of flying craft.

TABLE OF CONTENTS [abridged]:

Foreword --- 3

Card 1/2

L 45827-65

ACCESSION NR AM5002545

- Ch. I. Basic types of flying craft and their autopilots -- 5
- Ch. II. Information from the aerodynamics of flying craft -- 25
- Ch. III. Dynamic characteristics of flying craft -- 62
- Ch. IV. Basic elements of autopilots -- 87
- Ch. V. Structure and characteristics of flying craft-autopilot systems -- 160
- Ch. VI. Stabilization of the center of mass of a flying craft -- 224
- Ch. VIII. Effect of the nonlinear characteristics of an autopilot and time lag on the operation of a stabilization system -- 245
- Ch. IX. Principal circuits of autopilots -- 295
- Ch. X. Selection of the circuit and basic parameters of an autopilot -- 370
- Ch. XI. Use of modeling and other special tasks of automatic stabilization -- 432

SUBMITTED: 01Apr64

SUB CODE: HQ, AC

NO REF SOV: 086

OTHER: 006

  
Card 2/2

L 18983-631

EWT(d)/EWT(1)/BDS

AEDC/AFFTC/ASD/AFMDG/ESD-3/APGC/SSD

Pg-4/Pk-4/Pl-4/Po-4/Pq-4, BC

ACCESSION NR: AP3005682

S/0146/63/006/004/0090/0097

82  
81

AUTHOR: Khovanskiy, Yu. M.

TITLE: Single-axis systems of gyroscopic stabilization invariant to external influence

SOURCE: IVUZ. Priborostroyeniye, v. 6, no. 4, 1963, 90-97

TOPIC TAGS: gyroscopic stabilization, stabilization, single-axis gyroscopic stabilization

ABSTRACT: A theory is set forth of a single-axle gyro stabilizer that has an integrating gyroscope as a sensing element. Allowance is made for a gyroscope-to-platform moment that also influences a series corrective loop introduced in the system to assure necessary stability margin. The equations considered in the article describe: platform, gyroscope, precession-angle transducer, corrective loop, amplifier, and engine. Functional block diagrams are given. An Card 1/2

L 18983-63

ACCESSION NR: AP3005682

experiment with a simulated system, to which a harmonic disturbing moment was applied, showed that the author's invariant system has approximately fifty times better stabilization than the conventional system. Orig. art. has: 4 figures and 45 formulas.

ASSOCIATION: Leningradskiy institut aviatsionnogo priborostroyeniya  
(Leningrad Institute of Aviation Instruments)

SUBMITTED: 21Dec62

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: AE

NO REF SOV: 003

OTHER: 000

Card 2/2

ACCESSION NR: AR4039367

S/0272/64/000/003/0179/0179

SOURCE: Ref. Zh. Metro1. i izmerit. tekhn. Otd. vy\* p., Abs. 3.32.1220

AUTHOR: Khovanskiy, Yu. M.

TITLE: Influence of air in reducer of stabilizing motor on performance of uniaxial gyro frame

CITED SOURCE: Tr. Leningr. in-t aviats. priborostr., vy\* p. 40, 1963, 11-21

TOPIC TAGS: gyroscope, stability

TRANSLATION: It is shown that in a system of uniaxial, powerful gyroscopic stabilizer there may arise selfoscillations, the amplitude and frequency of which depend on air velocity. By choosing parameters it is possible to suppress the self-oscillations.

DATE ACQ: 22Apr64

SUB CODE: AS

ENCL: OC

Card 1/1

PAVLOV, V.A.; PONYRKO, S.A.; KHOVANSKIY, Yu.M.; FAFAYEVA, G.I.,  
red.; DANILOVA, V.V., red.

[Stabilization of aircraft and automatic pilots] Stabili-  
zatsiia letatel'nykh apparatov i avtopiloty. Moskva,  
Vysshaya shkola, 1964. 483 p. (MIRA 17:8)

KHOVENKO, M. V.

Khovenko, M. V. "Report on the fourth plenum of the Scientific Soviet of the Ukrainian Central Science-Research Institute of Orthopedics and Traumatology in the name of Professor M. I. Sitenko," [Khar'kov, January 1948] -- Author indicated in table of contents -- In symposium: Uchen. zapiski (Ukr. tsentr. nauch.-issled. inst. ortopedii i travmatologii im. Sitenko), Khar'kov, 1948, p. 189-98

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh chasiv, No. 13, 1949)

KHOVENKO, M.V., dots.

Anatomical and functional changes and rehabilitation processes following extensive resection of the proximal end of the femur with relation to problems of treatment. Ortop. travm. i protes. 19 no.4:28-33 JI-Ag '58 (MIRA 11:11)

1. Iz Ukrainского nauchno-issledovatel'skogo instituta ortopedii i travmatologii imeni M.I. Sitenko (dir. - chlen-korrespondent AMN SSSR prof. N.P. Novachenko) i kafedry ortopedii i travmatologii Stalinskogo meditsinskogo instituta imeni A.M. Gor'kogo (dir. dots. A.M. Ganichkin).

(FEMUR, surg.

resection of proximal end, postop. anat. & funct. changes (Rus))

KHOVENKO, M.V., dotsent; LEVITSKIY, F.A.

Fractures of the shinbone malleoli in miners. Trudy Ukr.  
nauch.-issl. inst. ortop. i travm. no.15:189-194 '59

(MIRA 16:12)

1. Iz kafedry gospital'noy khirurgii (zav.kafedroy - prof.  
R.V. Bogoslavskiy) Stalinskogo meditsinskogo instituta (dir.  
dotsent A.M.Ganichkin).

KHOVENKO, M.V., dotsent

Restorative processes in the area of the hip joint following the resection of the proximal end of a rabbit's hip; an experimental study. Trudy Ukr. nauch.-issl. inst. ortop. i travm. no.15:317-321 '59 (MIRA 16:12)

1. Iz Ukrainського nauchno-issledovatel'skogo instituta ortopedii i travmatologii imeni prof. M.I.Sitenko (dir.-chlen-korrespondent AMN SSSR, prof. N.P.Novachenko).

~~SOURCE~~, Given Names

Country: <sup>KHOVER, G.h.</sup> Rumania

Academic Degrees: -not given-

Affiliation: \*)

Source: Timisoara, Timisoara Medicala, Vol VI, No 1, Jan-Jun 1961, pp 33-37.

Data: "Reanimation in Terminal Collapse State With Transfusions of Oxygenated Blood Through Artificial Heart-Lungs."

Authors:

MANDACHE, F.  
MATEESCU, D.  
PRODESCU, V.  
KOVER, Gh.

ROSCA, S.  
CIOPALA, E.  
MATEICA, Monica  
CONSTANTINESCU, S.

LUTESCU, I.  
CANTARGIU, Sofia  
TANCIU, I.

\*) Work performed at the Surgical Clinic of "Brincovenesc" Hospital (Clinica de Chirurgie a Spitalului "Brincovenesc"), Director: F. MANDACHE.

GPO 981643

KIRSANOV, V.P., inzh.; MURASHOVA, M.A., inzh.; KHOVES, N.I., inzh.

Light characteristics of spherical impulse lamps operating  
with ignition repetition frequencies up to 10 kc. Sveto-  
tekhnika 9 no.10:18-20 0 '63. (MIRA 16:11)

1. Moskovskiy elektrolampovyy zavod.

*Khovín, S.*

USSR/Electronics - Moscow radio station

Card 1/1      Pub. 89 - 4/27

Authors      : Khovín, S. and Timofeev, V.

Title         : Forty years of the October radio center

Periodical   : Radio 1, 6-7, Jan 1955

Abstract     : A description of the Moscow radio station previously called "Khodynskaya radio station," and now the "October radio center" is presented. The station was built in 1914. Earlier it operated on long waves (7000-9000meters). It was modified and modernized for operation on HF and UHF. Since 1943 it became a frequency-modulation station. Illustration.

Institution : .....

Submitted   : .....

Khovin, S. I.

BROADCASTING

"Changeover of Type VESO-10 and TK-2 Transmitters to Auto-Anode Modulation" by S. I. Khovin, Engineer, Chief of the October Transmitting Radio Center, And S. E. Gorodetskiy, Engineer, Laboratory Director. Vestnik Svyazi, No 11, November 1957, pp 7-10.

A description of the changeover, in which a modulator, produced by the experimental shop of the October Transmitting Radio Center, was used. A complete circuit diagram is given and certain operating characteristics are reported.

Card: 1/1

-1-

AUTHOR: Khovin, S.I., Manager

SOV/111-58-12-6/38

TITLE: More Attention for Perfecting Operational Equipment (Boi'she vnimaniya sovershenstvovaniyu deystvuyushchego oborudovaniya)

PERIODICAL: Vestnik svyazi, 1958, <sup>14</sup>Nr 12, p 3 (USSR)

ABSTRACT: The author presents his views on N.S. Khrushchev's theses for his report to the XXI Congress of the USSR Communist Party. He mentions the new equipment which is to be used at radio stations according to the prospective plans. For example, modern tubes GU-28A and GU-80 will be installed in the type PK-2 transmitter whereby the efficiency of the transmitter will be increased. The author demands increased production of such control and measuring instruments for radio equipment as secondary frequency standards, frequency meters and devices for automation.

ASSOCIATION: Oktyabr'skiy peredayushchiy radiotsentr (Oktyabrsk Radio Transmitter Center)

Card 1/1

6.4500

87324

S/111/60/000/001/002/005  
B012/B077

AUTHOR: Khoyin, S. I., Engineer

TITLE: Remote Control of a Shortwave Transmitter

PERIODICAL: Vestnik svyazi, 1960, No. 1 (238), pp. 6-8

TEXT: This is a description of the automation of the transmitter KB-15/25 (KV-15/25) which was developed at one of the radio centers of the Moskovskaya direktsiya radiosvyazi i radioveshchaniya (MDRSV) (Moscow Chief Management of Radio Communication and Radio Transmission). The corresponding project was worked out by the proizvodstvennaya laboratoriya radio-tsentra (Production Laboratory of the Radio Center). The information characteristic of the working order of the output stage ( $E_a$ ,  $I_a$ , and  $I_o$ ) is conducted to the control desk over a circuit of the KCPГ-(KSRG) type cable. The low-frequency output voltages are controlled by standard-type instruments which have been developed by the proizvodstvennaya laboratoriya MDRSV (Production Laboratory of the MDRSV). The degree of modulation is tested by the modulation control instrument OM-4 (OM-4) which was developed by the NII Ministerstva svyazi SSSR (NII of the Ministry of

f

Card 1/6

Remote Control of a Shortwave Transmitter

87324

S/111/60/000/001/002/005  
B012/B077

Communications USSR) and built in the shops of the Oktyabr'skiy peredayushchiy radiotsentr (October Transmitting Radio Center). Fig. 2 shows the block diagram of the high-frequency section of the automatic station. The automatic tuning of circuits is done as follows: 1) Pretuning of circuits of the high-frequency stages and elements which connect the antenna-feeding part without high voltage (the transmitter is under no load). Here, a potentiometer circuit with a direct-current bridge is used. This system is called "rough tuning". Its diagram is given in Fig. 3, the circuit of the d.c. amplifier and the control system of this circuit are shown in Fig. 4. 2) Exact automatic tuning of circuits and selection of the connection with the antenna-feeding part under high voltage. Here, the circuit of the automatic "optimizer" developed at the Institut avtomatiki i telemekhaniki Akademii nauk SSSR (Institute of Automation and Telemechanics, Academy of Sciences USSR) is used. The exact resonance tuning of the power-stage circuit is done by applying a system to find the smallest value of the function. The system is controlled by the automatic "optimizer", and consists of a memory device, a part to form the control signal, an integrating part, and a control device. Fig. 5 shows the scheme of the exact tuning. The Komissiya Glavnogo radio-

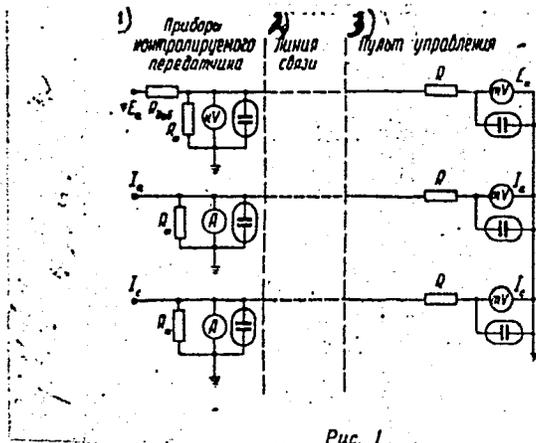
Card 2/6

87324

Remote Control of a Shortwave Transmitter

S/111/60/000/001/002/005  
B012/B077

upravleniya Ministerstva svyazi SSSR (Commission of the Main Radio Administration of the Ministry of Communications USSR) has accepted this system for automation of station control, and recommended it as a standard model. There are 6 figures.



Legend to Fig. 1: 1) instruments of the transmitter to be controlled, 2) connecting line, 3) control desk

Puc. 1

Card 3/6

87324

S/111/60/000/001/002/005  
B012/B077

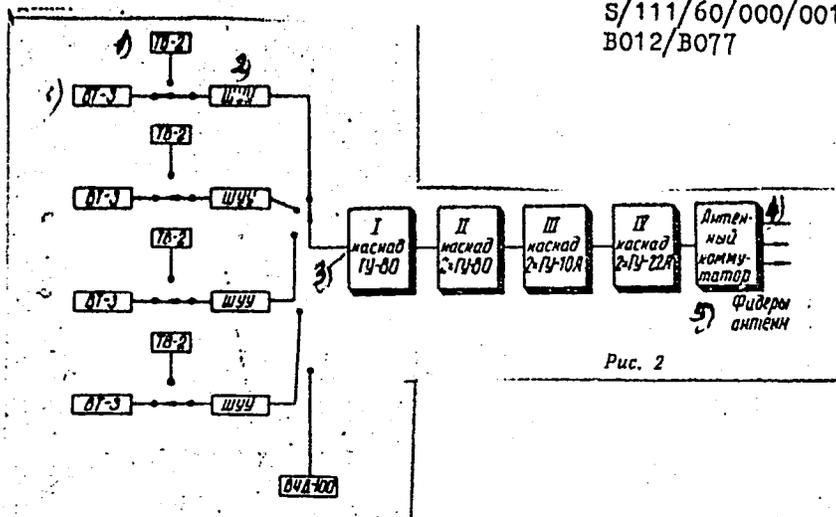


Рис. 2

Legend to Fig. 2: 1) crystal oscillator, 2) broad-band amplifier, 3) stage, 4) antenna switch, 5) antenna feeder.

Card 4/6



87324

S/111/60/000/001/002/005

B012/B077

Legend to Fig. 3: R<sub>1</sub> balance potentiometer, R<sub>2</sub> master resistor, K - tuner, M - moter, 1) d.c. amplifier, 2) control system, 3) drive.

Legend to Fig. 4: 1) input, 2) double triode, 3) P<sub>1</sub> polarized relay, 4) P<sub>2</sub> and P<sub>3</sub> relays to switch the electric drive.

Legend to Fig. 5: 1) automatic switch, 2) exciter, 3) feeder, 4) to first transmitter stage, 5) rectifier, 6) memory potentiometer block of the four transmitter stages, 7) block of four relays of the type 3Π (ZP), 8) control desk, 9) conductor, 10) motor, 11) transmitter control, 12) stage 13) antenna connector, 14) feeder, 15) control system, 16) d.c. amplifier, 17) automatic optimizer, 18) tuner of the connector with the antenna feeder.

Card 6/6

MEDVEDEVA, R.G.; KHOVINA, L.A.

Anatomical structure of *Rheum wittrockii* Lundstr. izv. AN Kazakh.  
SSR. Ser. biol. nauk 2 no.1:44-52 Ja-F '64. (MIRA 17:6)

DOROFYEV, Leonid Stepanovich; KHOVINSON, Yu.I., red.; KARAS', V.D.,  
tekhn. red.

[Modernization of industrial equipment; practice in improving the design of machine tools, bridge cranes and other equipment of the Kuybyshev Plant]Modernizatsiia zavodskogo oborudovaniia; iz opyta raboty po usovershenstvovaniu konstruksii metallorazhreshchikh stankov, mostovykh kranov i drugogo oborudovaniia zavoda imeni Kuybysheva. Irkutsk, Irkutskoe knizhnoe izd-vo, 1962, 38 p. (MIRA 15:11)  
(Machinery industry--Technological innovations)

KHOVRATOVICH, A. A.

Pereprava voisk. [Troop movement across water obstacles]. Moskva, Voen. izd-vo, 1950. 227 p., illus., diags.

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

KHOVRATOVICH, Adam Adamovich; STASYUK, N.A., redaktor; KAZAKOVA, V.Ye.,  
tekhnicheckiy redaktor

[Crossing rivers] Cherez reki. Moskva, Voen. izd-vo M-va obor.  
SSSR, 1956. 131 p. [Microfilm] (MLBA 10:4)  
(Military bridges)

KHOVRATOVICH, N.M.; CHIZHEVSKAYA, I.I.

Infrared spectra of L-tyrosine and of some of its derivatives.  
Dokl. AN BSSR 9 no. 5:305-309 My '65 (MIRA 19:1)

1. Institut fiziko-organicheskiy khimii AN BSSR i Belorusskiy gosudarstvennyy universitet imeni V.I. Lenina. Submitted May 6, 1964.

BORISEVICH, N.A.; KHOVRATOVICH, N.N.

Investigation of the intermolecular interactions of phthalimides  
with the aid of their infrared spectra. Opt.i spektr. 10 no.5:  
589-594 My '61. (MIRA 14:8)  
(Phthalimides—Spectra)

CHIZHEVSKAYA, I.I.; GAPANOVICH, L.I.; KHOVRATOVICH, N.N.;

Study of the hydrogen atomic lability in ethyl groups of cer-  
ta'1 methylpyridine derivatives. Zhur. b. khim. 34 no.12:4059-  
4065 D '64 (MIRA 18:1)

1. Institut fiziko-organicheskoy khimii AN Belorusskoy SSR.

**KHOVRIN, A.V., inzhener.**

**Water-level regulator in the turbine condenser. Energetik 4 no.8:  
18-20 Ag '56. (Condensers (Steam)) (MLRA 9:10)**

L 1365-66 EWT(a)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/EWA(c)

ACCESSION NO: AP5021699 JD/HW

UR/0383/65/000/004/0040/0042  
621.771.2.004.11

AUTHOR: <sup>44 55</sup> Markovskiy, I.Z.; <sup>44 55</sup> Khovrin, B.V.; <sup>44 55</sup> Denchenko, A.T.

29  
B

TITLE: New "300" continuous skelp mill

SOURCE: Metallurgicheskaya <sup>44 55</sup> i gornorudnaya promyshlennost', no. 4, 1965, 40-42

TOPIC TAGS: continuous skelp mill, automatic rolling mill, skelp mill, skelp coil, metal strip, bent section, rolled stock/"300" continuous skelp mill

ABSTRACT: This automated "300" continuous skelp mill was installed at the <sup>44 55</sup> Krivoy Rog Metallurgical Plant imeni Lenin. It is designed to roll skelp 116 to 400 mm wide and 2 to 8 mm thick from billets 100 mm thick, 120-400 mm wide, and 12 m long. The mill consists of 15 roll stands divided into one breakdown group and one finishing group. The breakdown group consists of nine individually driven roll stands with a wide range of rolling speeds; of these nine, three have vertically positioned rolls and six other roll stands in this group are of the horizontal two-high kind. The finishing group consists of six roll stands, also individually driven, of which one is horizontal two-high, three are four-high, and two have vertically positioned rolls. The billets are placed by means of a crane on a manipulator-

Card 1/3

L-1365-66

ACCESSION NR: AP5021699

equipped approach table on which they travel toward a continuous furnace where they are heated to 1200°C; thence they proceed to cutting shears, where they are cut into specific lengths (8 to 12 mm), and onto a roller table which carries them to the first roll stand, or discards them if they are defective; the entire process is automated, being controlled by an operator at a control panel. After passing through the breakdown and finishing rolls the skelp is water-cooled on the run-out table and conveyed to two coilers. The rate of travel of the run-out table and the rate of skelp coiling are synchronized with the rolling rate (up to 21 m/sec). The alternate energizing of each coiler is accomplished by the pulse of a photorelay mounted at the end of the run-out table. Each coiler is equipped with a coil re-moving attachment by means of which the coils are placed on two chain conveyers on which they cool to 250-350°C. At the end of the conveyers are installed coil-re-moving attachments, two coil-binding machines, and two bundling trolleys. On these trolleys the coils are conveyed to the bays of the warehouse, where they are unloaded by bridge cranes. Since the mill was put into operation (29 May 1964) it has been used to organize the production of such sections as 250x4, 290x4, 320x3.2, 320x3.5, 360x4, and 370x4 mm skelp and strips; and 250, 320, 360, and 370 mm wide, 4.7-8 mm thick sheet bars. It is now being geared to the rolling of 300x4 mm skelp, designed for the production of bent sections; this will be a major contribution to

Card 2/3

L 1365-66

ACCESSION NR: AP5021699

the production of rolled stock in the USSR. Orig. art. has: 1 figure, 1 table. 0

ASSOCIATION: none

SUBMITTED: 00

ENG: 00

SUB CODE: MM, IE

NO SOV REF: 000

OTHER: 000

*dy*  
Card 3/3

25(7)

PHASE I BOOK EXPLOITATION SOV/1549

Khovrin, Ivan Nikolayevich

Frezernaya obrabotka kruglykh detaley (Milling Large Machine Parts)  
Moscow, Mashgiz, 1958. 23 p. Series: Otsen tekhnicheskim opytom  
7,000 copies printed.

Ed.: V.V. Kuvshinskiy, Candidate of Technical Sciences; Executive Ed.  
(Ural-Siberian Division, Mashgiz): M.A. Bezukladnikov, Engineer; Tech. Ed.:  
N.A. Dugina.

PURPOSE: This booklet is intended for milling machine operators and foremen  
in machine-building plants.

COVERAGE: The booklet contains instructions for milling machine operators on  
setting up machines for the milling of long plane surfaces and keyways.  
Several diagrams show various methods of clamping standard machine parts such  
as connecting rods to the table in milling operations. One page is devoted to  
the design of modern end milling cutters.

Card 1/2